## **VOLUME 37**

## 1999

#### **Founding Editor** Ralph Mitchell

#### **Editor-in-Chief**

James K. Fredrickson Biogeochemistry Department Pacific Northwest National Laboratory P.O. Box 999, P7-50 902 Battelle Boulevard Richland, Washington 99352 USA

#### **Editors**

Elizabeth M.H. Wellington Department of Biological Sciences University of Warwick Coventry CV4 7AL, UK

Kazuhiro Kogure Ocean Research Institute University of Tokyo Minamidai, Nakano Tokyo 164-8639, Japan

### **Editorial Board**

**Erland Baath** University of Lund Department of Microbial Ecology Lund, Sweden

Yoav Bashan Department of Microbiology La Paz B.C.S., Mexico

Lynne Boddy School of Pure/Applied Biology University of Wales College of Cardiff Cardiff, United Kingdom

Thomas L. Bott Stroud Water Research Laboratory Avondale, Pennsylvania

Jan Dolfing Research Institute for Agrobiology and Soil Fertility (AB-DLO) Wageningen, The Netherlands

**Hugh Ducklow** Virginia Institute of Marine Sciences The College of William and Mary Gloucester Point, Virginia

Robert Findlay Department of Microbiology Miami University of Ohio Oxford, Ohio

Madilyn Fletcher Belle W. Baruch Institute for Marine Biology and Coastal Research University of South Carolina Columbia, South Carolina

Manfred Höfle GBF, National Research Center for Biotechnology Braunschweig, Germany

William E. Holben Division of Biological Sciences The University of Montana Missoula, Montana

**Thomas Kieft** Department of Biology New Mexico Institute of Mining and Technology Socorro, New Mexico

**Nancy Kinner** Kingsbury Hall Department of Civil Engineering University of New Hampshire Durham, New Hampshire

Allan Konopka Department of Biological Sciences Purdue University West Lafayette, Indiana

John Lawrence National Hydrology Research Institute Saskatoon, Saskatchewan, Canada

Steven Lindow Department of Plant and Microbial Biology University of California Berkeley, California

Derek R. Lovley Department of Microbiology University of Massachusetts Amherst, Massachusetts Aaron Mills

Charlottesville, Virginia Ralph Mitchell Harvard University Cambridge, Massachusetts

University of Virginia

Toshi Nagata Ocean Research Institute University of Tokyo Tokyo, Japan

Hans W. Paerl Institute of Marine Sciences University of North Carolina at Chapel Hill Morehead City, North Carolina

Karsten Pedarsen Department of Cell and Molecular Biology Göteborg University Göteborg, Sweden

Jim Prosser Department of Molecular and Cell Biology Institute of Medical Sciences Aberdeen, United Kingdom

Neils B. Ramsing Department of Microbial Ecology University of Aarhus Aarhus, Denmark

Kate Scow Department of Land, Air, and Water Resources University of California Davis, California

Michael A. Sleigh Department of Biology University of Southampton Southampton, United Kingdom

David A. Stahl Department of Civil Engineering Northwestern University Evanston, Illinois

**Curtis Suttle** Department of Oceanography The University of British Columbia Vancouver, British Columbia Canada

Gerald W. Tannock Department of Microbiology University of Otago Dunedin, New Zealand

Bess Ward Department of Geosciences Princeton University Princeton, New Jersey

#### Aims and Scope

Microbial Ecology is an international journal whose aim is the advancement and dissemination of information describing the interactions between microorganisms and the biotic and abiotic components of their environments. Microbial Ecology features articles of original research and brief reviews. The Editor encourages submissions in the following areas:

- · ecology of microorganisms in natural and engineered environments
- advances in molecular-based understanding of microbial interactions and phylogeny
- microbially driven biogeochemical processes
- interactions among microbial populations and communities
- · microbial processes and interactions in extreme or unusual environ-
- ecological studies pertaining to animal, plant and insect microbiology
- microbial processes and interactions associated with environmental pollution
- advances in technique

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions, also in microform is transferred to the publisher.

The use of registered names, trademarkes, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt for the relevant protective laws and regulations and therefore free for general use.

Printed in the United States of America © 1999 by Springer-Verlag New York Inc.

# Index to Volume 37

Agis, M., see Unanue, M., et al
Albrechtsen, HJ., see Ludvigsen, L., et al 197
Arana, I., see Muela, A., et al
Ayo, B., see Unanue, M., et al
Barcina, I., see Muela, A., et al
Battin, T.J., Sengschmitt, D.: Linking Sediment Biofilms,
Hydrodynamics, and River Bed Clogging: Evidence
from a Large River
Bekins, B.A., Godsy, E.M., Warren, E.: Distribution of
Microbial Physiologic Types in an Aquifer Contami-
nated by Crude Oil
Berthe-Corti, L., Bruns, A.: Impact of Oxygen Tension
on Cell Density and Metabolic Diversity of Microbial
Communities in Alkane Degrading Continuous-Flow
Cultures 70
Bruns, A., see Berthe-Corti, L
Canhoto, C., Graça, M.A.S.: Leaf Barriers to Fungal
Colonization and Shredders (Tipula lateralis) Con-
sumption of Decomposing Eucalyptus globulus 163
Christaki, U., see Pelegri, S.P., et al
Christensen, T.H., see Ludvigsen, L., et al 193
Clays-Josserand, see Féray, C., et al
de Wit, R., see Pringault, O., et al
De Domenico, M., see Giuliano, L., et al
De Domenico, E., see Giuliano, L., et al
Degrange, V., see Féray, C., et al
Demers, S., see Sime-Ngando, T., et al
Deming, J.W., see Vetter, Y.A
Di Giovanni, G.D., Watrud, L.S., Seidler, R.J., Widmer,
F.: Comparison of Parental and Transgenic Alfalfa
Rhizosphere Bacterial Communities Using Biolog
GN Metabolic Fingerprinting and Enterobacterial Re-

petitive Intergenic Consensus Sequence-PCR (ERIC-	
PCR)	129
Dini, F., Nyberg, D.: Growth Rates of Marine Ciliates on	
Diverse Organisms Reveal Ecological Specializations	
within Morphospecies	13
Dolan, J., see Pelegrí, S.P., et al.	276
Ekelund, F., see Ludvigsen, L., et al.	197
Féray, C., Volat, B., Degrange, V., Clays-Josserand, A.,	
Montuelle, B.: Assessment of Three Methods for De-	
tection and Quantification of Nitrite-Oxidizing Bac-	
teria and Nitrobacter in Freshwater Sediments (MPN-	
PCR, MPN-Griess, Immunofluorescence)	208
Findlay, S., see Wehr, J.D., et al.	
Fredrickson, J.K.: Microbial Ecology Becomes the Official	
Journal of the International Society for Microbial	
Ecology	1
Friedrich, U., Schallenberg, M., Holliger, C.: Pelagic Bac-	
teria-Particle Interactions and Community-Specific	
Growth Rates in Four Lakes along a Trophic Gradi-	
ent	49
Giuliano, L., De Domenico, M., De Domenico, E., Höfle,	
M.G., Yakimov, M.M.: Identification of Culturable	
Oligotrophic Bacteria within Naturally Occurring	
Bacterioplankton Communities of the Ligurian Sea by	
16S rRNA Sequencing and Probing	77
Godsy, E.M., see Bekins, B.A., et al	
Graça, M.A.S., see Canhoto, C.	
Gramss, G., Ziegenhagen, D., Sorge, S.: Degradation of	
Soil Humic Extract by Wood- and Soil-Associated	
Fungi, Bacteria, and Commercial Enzymes	
Herndl, G.J., see Unanue, M., et al	
Hodgkies II see Yuan T.K. et al	257

Höfle, M.G., see Giuliano, L., et al	Seidler, R.J., see Di Giovanni, G.D., et al	9
Holliger, C., see Friedrich, U., et al	Semenov, A.M., van Bruggen, A.H.C., Zelenev, V.V.:	
Hyde, K.D., see Yuen, T.K., et al	Moving Waves of Bacterial Populations and Total	
Iriberri, J., see Unanue, M., et al	Organic Carbon along Roots of Wheat 110	6
Juniper, S.K., see Sime-Ngando, T., et al 95	Sengschmitt, D., see Battin, T.J	5
Justo, J.I., see Muela, A., et al	Sime-Ngando, T., Demers, S., Juniper, S.K.: Protozoan	
Kühl, M., see Pringault, O., et al	Bacterivory in the Ice and the Water Column of a	
Lawrence, J.R., see Manz, W., et al 225	Cold Temperate Lagoon 9.	5
Ludvigsen, L., Albrechtsen, HJ., Ringelberg, D.B., Eke-	Sleigh, M.A., see Zubkov, M.V	
lund, F., Christensen, T.H.: Distribution and Compo-	Slezak, D., see Unanue, M., et al	6
sition of Microbial Populations in a Landfill Leachate	Sorge, S., see Gramss, G., et al	0
Contaminated Aquifer (Grindsted, Denmark) 197	Szewzyk, U., see Manz, W., et al	
Lynch, J.M., see Naseby, D.C	Taghon, G.L., see Tso, S.F.	
Manz, W., Wendt-Potthoff, K., Neu, T.R., Szewzyk, U.,	Tso, S.F., Taghon, G.L.: Factors Affecting Predation by	
Lawrence, J.R.: Phylogenetic Composition, Spatial	Cyclidium sp. and Euplotes sp. on PAH-Degrading and	
Structure, and Dynamics of Lotic Bacterial Biofilms		3
Investigated by Fluorescent in Situ Hybridization and	Ulrich, A., Wirth, S.: Phylogenetic Diversity and Popu-	
Confocal Laser Scanning Microscopy	lation Densities of Culturable Cellulolytic Soil Bacte-	
Montuelle, B., see Féray, C., et al	ria across an Agricultural Encatchment	8
Muela, A., Arana, I., Justo, J.I., Seco, C., Barcina, I.:	Unanue, M., Ayo, B., Agis, M., Slezak, D., Herndl, G.J.,	
Changes in DNA Content and Cellular Death during	Iriberri, J.: Ectoenzymatic Activity and Uptake of	
a Starvation-Survival Process of Escherichia coli in	Monomers in Marine Bacterioplankton Described by	
River Water 62	a Biphasic Kinetic Model	36
Naseby, D.C., Lynch, J.M.: Effects of Pseudomonas fluore-	van Bruggen, A.H.C., see Semenov, A.M., et al 11	
scens F113 on Ecological Functions in the Pea Rhizo-	Vetter, Y.A., Deming, J.W.: Growth Rates of Marine	
sphere Are Dependent on pH 248	Bacterial Isolates on Particulate Organic Substrates	
Neu, T.R., see Manz, W., et al	Solubilized by Freely Released Extracellular En-	
Nyberg, D., see Dini, F	zymes	36
Nyman, J.A.: Effect of Crude Oil and Chemical Additives	Volat, B., see Féray, C., et al	
on Metabolic Activity of Mixed Microbial Populations	Warren, E., see Bekins, B.A., et al	
in Fresh Marsh Soils	Watrud, L.S., see Di Giovanni, G.D., et al	
Pelegrí, S.P., Christaki, U., Dolan, J., Rassoulzadegan, F.:	Wehr, J.D., Petersen, J., Findlay, S.: Influence of Three	
Particulate and Dissolved Organic Carbon Produc-	Contrasting Detrital Carbon Sources on Planktonic	
tion by the Heterotrophic Nanoflagellate Pteridomo-	Bacterial Metabolism in a Mesotrophic Lake 2	23
nas danica Patterson and Fenchel	Wendt-Potthoff, K., see Manz, W., et al 22	
Petersen, J., see Wehr, J.D., et al	Widmer, F., see Di Giovanni, G.D., et al	
Pringault, O., de Wit, R., Kühl, M.: A Microsensor Study	Wirth, S., see Ulrich, A	
of the Interaction between Purple Sulfur and Green	Yakimov, M.M., see Giuliano, L., et al	
Sulfur Bacteria in Experimental Benthic Gradients 173	Yuen, T.K., Hyde, K.D., Hodgkiss, I.J.: Interspecific In-	
Rassoulzadegan, F., see Pelegrí, S.P., et al	teractions among Tropical and Subtropical Freshwa-	
Ringelberg, D.B., see Ludvigsen, L., et al	ter Fungi	57
Roane, T.M.: Lead Resistance in Two Bacterial Isolates	Zelenev, V.V., see Semenov, A.M., et al	
from Heavy Metal-Contaminated Soils	Ziegenhagen, D., see Gramss, G., et al	
Schallenberg, M., see Friedrich, U., et al	Zubkov, M.V., Sleigh, M.A.: Growth of Amoebae and	
Seco, C., see Muela, A., et al	Flagellates on Bacteria Deposited on Filters 10	07

